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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,963	06/27/2003	Jordi Parramon	AB-233U	3067

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EXAMINER	
MALAMUD, DEBORAH LESLIE	
ART UNIT	**PAPER NUMBER**
3766	

DATE MAILED: 01/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/607,963	PARRAMON ET AL.	
	Examiner	Art Unit	
	Deborah Malamud	3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 June 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 June 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7/19/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-3 and 18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3 and 17 of copending Application No. 10/607,962. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both claim implantable electronic modules or implantable stimulators with identical components and uses (stimulation of a patient).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nordling (U.S. 4,441,498) in view of Schulman et al (U.S. 5,193,539). Regarding claims 1, 12 and 18, Nordling discloses (column 2, lines 11-17) an "implantable programmable electromedical pulse generator" that includes a "hermetically sealed housing within which a battery, programmable pulse generator circuit means, and planar receiver coil means are located." The examiner considers the planar receiver coil to be the antenna. Nordling further discloses (column 7, lines 13-15) "in the diagram contained in FIG. 2, electrode (100) at the distal end of lead (22) is shown placed within heart (90)." The examiner considers this to be a first electrode external to the housing and electrically coupled to the electronic subassembly. The examiner considers Figure 4 to teach an antenna coil (40) and telemetry means coupled to the antenna coil, which is capable of allowing-data containing signals to be received from and sent to an external device. Nordling fails to teach the dimensions of the housing. Schulman however discloses an implantable microstimulator (column 4, lines 5-8) "on the order of 2 mm in diameter and 10 mm long. Because of such diminutive character, it is readily implanted in a living person or animal through the lumen of the needle of a hypodermic syringe." Nordling and Schulman both disclose implantable systems for safely delivering stimulation to the

body. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nordling's implantable pulse generator with Schulman's microstimulator in order to easily deliver the IPG to a patient. Further, Nordling in view of Schulman discloses the claimed invention except for a second electrode. It would have been obvious to one of ordinary skill in the art at the time of the invention to add a second electrode external to the hermetically sealed housing and electrically coupled to the electronic subassembly, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.,* 193 USPQ 8. See MPEP § 2144.04.

Regarding claims 2, 3 and 9, Schulman discloses (column 11, lines 50-52) "the coil (11) is shown wound around a ferrite core (50). Such core is cylindrical and is manufactured in two halves with a U-channel in each one." Coil 11 is a "secondary coil" within the microstimulator that "receives energy and control information from the modulated, alternating magnetic field provided by coil (1) and passes such energy and information to electronic control means which comprises power supply and data detector which, in turn, provides power to an electrode recharge current controller and stimulating electrodes (14 and 15)." Though coil 11 is not specifically named as an antenna, its purpose is identical to an antenna. Therefore, the examiner considers Schulman to teach an antenna coil wound around a ferrite core that includes a first half and a second half. See Figure 8.

Regarding claim 7, Schulman discloses (column 2, lines 38-41) "The stimulation pulses are delivered to the body through electrodes exposed on the outer surface of the

microstimulator." See Figure 8. The examiner considers this to teach at least one electrodes carried on an external surface of the hermetically-sealed case.

Regarding claims 9, 11, 15 and 17, Schulman teaches the use of a capacitor as a power source, but fails to teach whether it is a super capacitor or not. It is well known in the art to use super capacitors as power source means. It would have been an obvious matter of design choice to a person of ordinary skill in the art to modify the implantable stimulation system as taught by Nordling in view of Schulman, with the power source of a super capacitor, because the applicant has not disclosed the super capacitor provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected the applicant's invention to perform equally well with a battery or a capacitor as taught by Nordling and Schulman, respectively, because they are long-lasting power sources for implantable stimulation devices. Therefore, it would have been an obvious matter of design choice to modify the power source to be a super capacitor to obtain the invention as specified in the claims. See Rightmire (U.S. 3,288,641) and Becker (U.S. 2,800,616).

Regarding claims 4, 8, 13-14 and 19, Nordling discloses (column 4, lines 4-5) "battery (16) is a Model 7905, 1.7AH lithium iodine battery." The examiner considers this to be a primary battery.

Regarding claim 5, Schulman discloses (column 12, lines 8-12) "it is noted that such electrodes, or their leads, are hermetically sealed to housing 72. The preferred embodiment comprises a housing of N51A glass or other suitable biomedical grade

capillary tubing having an inner diameter of about 1.25 mm's." The examiner considers this to be a tubular-shaped housing no longer than about 27 mm and having a diameter no greater than about 3.3 mm.

Regarding claims 10, 16 and 20, Nordling in view of Schulman discloses the claimed invention but does not disclose expressly the use of a rechargeable battery. It is well known in the art to use a rechargeable battery as a power source. It would have been an obvious matter of design choice to a person of ordinary skill in the art to modify the implantable stimulation system as taught by Nordling in view of Schulman, with the rechargeable, because the applicant has not disclosed the rechargeable battery provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected the applicant's invention to perform equally well with the primary battery and capacitor as taught by Nordling and Schulman, respectively, because they are long-lasting power sources for implantable stimulation devices. Therefore, it would have been an obvious matter of design choice to modify the power source to be a rechargeable battery to obtain the invention as specified in the claims. See Faltys et al (U.S. 6,826,430) and Adams et al (U.S. 5,372,605).

Further regarding claim 18, the functional language and introductory statement of intended use have been carefully considered but are not considered to impart any further structural limitations over the prior art. Since Nordling's implantable programmable pulse generator utilizes the housing, electronic subassembly, self-contained power source, electrode and telemetry means as claimed by the applicant,

Nordling's implantable programmable pulse generator is therefore capable of being used in an implantable neural stimulation module. In addition nothing prevents it from being used as a neural stimulator module. Therefore, they are capable of stimulating a nerve rather than in the heart.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. 5,861,019 to Sun et al, disclosing Implantable medical device microstrip telemetry antenna

U.S. 5,807,397 to Barreras, disclosing Implantable stimulator with replenishable, high value capacitive power source and method therefore

U.S. 2003/0171787 to Money et al, disclosing Cochlear implant

U.S. 6,826,430 to Faltys et al, disclosing High contact count, sub-miniature, fully implantable cochlear prosthesis

U.S. 5,951,594 to Kerver, disclosing Air core antenna for implantable device and method of production

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Malamud whose telephone number is (571) 272-2106. The examiner can normally be reached on Monday-Friday, 8.00am-5.30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571)272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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